WTCI-331-P

ALUMINUM COMPANY OF AMERICA

WORLD TRADE CENTER FIELD OFFICE

136 LIBERTY STREET · ROOM 711 · NEW YORK, N. Y. 10006

ALCOA

Telephone 212-349-0451

May 1, 1970

The Port of New York Authority
30 Church Street
New York, New York 10007

Attention: Mr. R. M. Monti

RE: World Trade Center 400.00
Insulation

Gentlemen:

This is a request for your approval of the use of Cafco Blaze-Shield type D C/F, non-asbestos, material in lieu of the Cafco Blaze-Shield type "D" previously approved.

Copies of United States Mineral Products Company's letter of 4/30/70 and Dynatech's "Report on the Thermal Conductivity of A Sample of Thermal Insulation" dated 4/28/70 and identified as Cafco Blaze-Shield D C/F, are attached.

Very truly yours,

Jack Sorrell
Project Construction Manager

JS:dl

Attachment

cc: F. H. Werneke - PONYA
M. Gerstman - TRCC

— 5/1/70 —
Approved to continue with this material floors 20 thru 25 incl. Tower A.

M007117

PLAINTIFF'S EXHIBIT PX-597

WORLD TRADE CENTER

THIS REPORT IS NOT FOR OFFICIAL RELEASE TO ANY SOURCE OUTSIDE U.S. MINERAL PRODUCTS CO.

DYNATECH

U.S.M.P.Co
4/30/70

Report on

THE THERMAL CONDUCTIVITY OF A SAMPLE OF THERMAL INSULATION

For: United States Mineral Products Company
General Office and Plant
Stanhope, New Jersey 07874

The material submitted for test at a mean temperature of approximately 21C (70F) was stated to be Cafco Blaze-Shield D-CF having a nominal density of approximately 175 Kg m^{-3} (11 lb ft^{-3}).

It was in the form of a flat plate approximately 300 mm square and 25 mm thick and was supplied for test using the Rapid "k" Tester. It was to be evaluated at its nominal thickness and after compression to approximately 19 mm and 13 mm.

For the purposes of the test the sample was placed between two flat 300 mm square aluminum plates. The upper plate contained a heater while the lower plate consisted of cooling chamber, a subsidiary heater and a multi junction thermopile calibrated heat meter. Both plates were automatically controlled at given steady temperatures approximately 20 C different from each other. At equilibrium conditions, the temperature of both hot and cold faces was evaluated from thermocouples embedded in the plates and the heat flow through the specimen was derived from the output of the heat meter.

The thermal conductivity of the test sample was calculated from this heat flow, the temperature difference across the faces, and the known dimensions. The results obtained for the particular sample tested are given in the following table. } ASTM C-518

Thermal Conductivity of a Sample of Cafco Blaze-Shield D-CF at 20C

Test Density		Test Thickness	Thermal Conductivity		
Kg m^{-3}	lb ft^{-3}	mm	10^2 Watt m^{-1} deg C^{-1}		Btu in $hr^{-1}ft^{-2}degF$
188	11.7	25.3	3.98		0.275
250	15.6	19.0	4.19		0.29
330	20.5	13.7	4.38	M007118	0.305

Reference: UMP-3

Date: April 28, 1970

Progress through Research